

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
2 August 2007 (02.08.2007)

PCT

(10) International Publication Number  
**WO 2007/086622 A1**

(51) International Patent Classification:  
A61B 17/86 (2006.01)

(21) International Application Number:  
PCT/KR2006/000316

(22) International Filing Date: 27 January 2006 (27.01.2006)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): OSSTEM  
IMPLANT CO., LTD [KR/KR]; 426-5, Gasan-dong,  
Geumcheon-gu, Seoul 153-803 (KR).

(72) Inventor: KIM, Byung-kook; 102-901 Sinwon Apt.,  
Daeyeon 3-dong, Nam-gu, Busan 608-778 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): EOM, Tae-Gwan  
[KR/KR]; 102-2002 Hyundai Apt., 1337, Jwa-dong,  
Haeundae-gu, Busan 612-775 (KR).

(74) Agent: KIM, Hyun-Soo; 6fl., Handeok Bldg., 649-4 Yok-  
sam-dong, Kangnam-gu, Seoul 135-080 (KR).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,  
LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,  
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,  
UZ, VC, VN, YU, ZA, ZM, ZW.

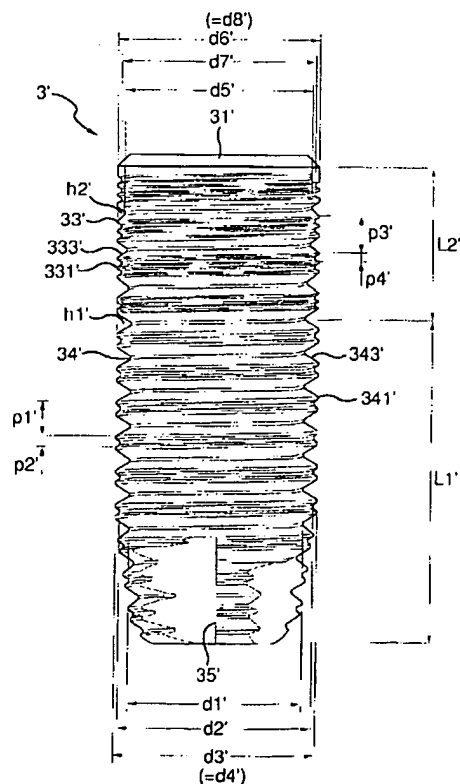
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,  
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: FIXTURE



(57) Abstract: A screw type fixture is disclosed. In the fixture of the present invention, small screw threads (231) are formed on a ridge of a large screw thread (233) formed on the circumferential outer surface of the fixture, so that reliable fixing force of the fixture to cancellous bone is ensured by the increased contact surface, and stress around the large screw thread (233) is distributed. Furthermore, in the present invention, the pitch of the screw thread of a cortical bone coupling part (33) of the fixture, which is implanted in cortical bone, and the difference between the outer diameter thereof and the root diameter thereof are less than those of a cancellous bone coupling part (34) of the fixture, so that stress otherwise concentrated on the cortical bone is distributed to the cancellous bone, thus preventing bone resorption, and promoting osseointegration.



— with amended claims and statement

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*